

## CLAIMS

I claim:

1. A movable sensor apparatus, comprising:
  - a movable housing;
  - 5       at least one supporting extension wherein each said supporting extension is rotatably affixed to said housing about a first axis;
  - at least one sensor that is rotatably affixed to one of said at least one supporting extension about a second axis different from said first axis;
  - a linear propulsion mechanism attached to said housing whereby said housing
  - 10       may be moved over the ground;
  - a triggering unit electrically coupled to each of said at least one sensor and capable of separately activating each of said at least one sensor; and,
  - a sampling unit electrically coupled to each of said at least one sensor and capable of receiving output from each of said at least one sensor.
- 15       2. The movable sensor apparatus of Claim 1 wherein said sensor is a magnetometer.
3. The movable sensor apparatus of Claim 1 wherein said sensor is an optical camera
- 20       4. The movable sensor apparatus of Claim 1 wherein said sensor is an electromagnetic induction sensor.
5. The movable sensor apparatus of Claim 1 wherein said sensor is a sonar sensor.
- 25       6. The movable sensor apparatus of Claim 1 wherein each said supporting extension rotates at a constant rate of rotation.
7. The movable sensor apparatus of Claim 6 wherein each said sensor rotates at a constant rate of rotation that is equal in magnitude and opposite in direction to
- 30       said constant rate of rotation of each said supporting extension.

8. The movable sensor apparatus of Claim 1 further comprising a position indicator coupled to at least one said supporting extension and said linear propulsion mechanism.

5 9. The movable sensor apparatus of Claim 8 further comprising a data storage device for storing sensor data collected from each of said at least one sensor and position data collected from said position indicator.

10. A movable sensor apparatus, comprising:

- 10 a movable housing;
- a first supporting extension rotatably affixed to said housing about a first axis;
- a second supporting extension rotatably affixed to said housing about said first axis;
- a first sensor that is rotatably affixed to said first supporting extension about a second axis different from said first axis;
- 15 a second sensor that is rotatably affixed to said second supporting extension about a third axis different from said first axis and said second axis;
- a linear propulsion mechanism attached to said housing whereby said housing may be moved over the ground;
- 20 a triggering unit electrically coupled to said first sensor and said second sensor and capable of separately activating said first sensor and said second sensor; and,
- a sampling unit electrically coupled to said first sensor and said second sensor and capable of receiving output from said first sensor and said second sensor.
- 25

11. The movable sensor apparatus of Claim 6 wherein said first sensor is a radar sensor and said second sensor is a magnetometer.

30 12. The movable sensor apparatus of Claim 6 wherein said first sensor is a radar sensor and said second sensor is an optical camera.

13. The movable sensor apparatus of Claim 6 wherein said first sensor is a radar sensor and said second sensor is an electromagnetic induction sensor.

5 14. The movable sensor apparatus of Claim 6 wherein said first sensor is a radar sensor and said second sensor is a sonar sensor.

15. The movable sensor apparatus of Claim 6 wherein said first sensor is a magnetometer and said second sensor is an optical camera.

10 16. The movable sensor apparatus of Claim 6 wherein said first sensor is a magnetometer and said second sensor is an electromagnetic induction sensor.

15 17. The movable sensor apparatus of Claim 6 wherein said first sensor is a magnetometer and said second sensor is a sonar sensor.

18. The movable sensor apparatus of Claim 6 wherein said first sensor is an optical camera and said second sensor is an electromagnetic induction sensor.

20 19. The movable sensor apparatus of Claim 6 wherein said first sensor is an optical camera and said second sensor is a sonar sensor.

25 20. The movable sensor apparatus of Claim 6 wherein said first sensor is an electromagnetic induction sensor and said second sensor is a sonar sensor.